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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of: Posa et al.

Serial No.: 09/625,531 Group No.: 2682

Filed: July 26, 2000 Examiner: E. Orgad

For: REMOTE MICROPHONE TELECONFERENCING CONFIGURATIONS

APPELLANTS' APPEAL BRIEF UNDER 37 CFR §41.37

Mail Stop APPEAL BRIEF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Real Party in Interest.

The real party in interest is Videa, LLC, a Michigan limited liability company, by assignment.

II. Related Appeals and Interferences.

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims.

The application was originally filed with 17 claims. Claims 1-7 and 9-10 have been canceled, and claims 18-21 were added by amendment in April 2006. Claims 8 and 11-21 are pending. Claims 8 and 11-20 are rejected and under appeal. Claim 8 is the sole independent claim.

IV. Status of Amendments Filed Subsequent To Final Rejection

An after-final amendment is filed herewith correcting the dependency of claims 11 and 12. These amendments have been reflected in the claims in the Appendix A, Claims on Appeal section of this Brief.

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V. Summary of Claimed Subject Matter

Independent claim 8 is directed to telecommunications apparatus comprising a base unit (102, 202, 302, 404, 602, 702, 802, 900), with an interface to a telecommunications network (106, 206, 306, 606, 706, 806, 906), and at least one wireless remote microphone in wireless communication with the base unit (110, 210, 310, 310', 310", 402, 510, 510', 510" 610, 710, 810, 910), enabling a user of the microphone to speak to a listener through the base unit and telecommunications network. The base unit forms part of a video teleconferencing system (Figures 6-10), including a video camera(603, 703, 802, 942, 1002) for capturing images of the user for transmission to the listener through the telecommunications network. A wireless locator signal transmitter (Figures 6-8, 980, Figure 10) is located at the base unit. The remote microphone is configured to receive and re-transmit the locator signal to the base unit, enabling the base unit to determine a positional aspect of the user of the microphone (Figures 6-10). A pan or tilt capability associated with the video camera which is controlled as a function of the positional aspect (Figure 6, 704, Figure 8, 940, Figure 10), enabling the video camera to visually track a moving user. (Specification, page 9, line 12 to page 15, line 13)

VI. Grounds of Objection/Rejection To Be Reviewed On Appeal

A. The rejection of claims 8 and 11-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,640,239 to Gidwani in view of U.S. Patent No. 6,731,334 to Maeng et al.

VII. Argument

A. <u>The Rejection of Claim 8, 11, 12 and 18, wherein claims 11, 12 and 18 stand/fall with claim 8.</u>

Claim 8 stands rejected under 35 U.S.C. §103(a) over Gidwani in view of Maeng et al. The Examiner's characterization at the bottom of page 2 and the top of page 3 of the final Office Action regarding Gidwani is correct. Gidwani does teach telecommunications apparatus including a microphone and a video camera operative to deliver information about a speaker to a recipient over a telecommunications network.

The Examiner is also correct that "Gidwani fails to specifically disclose a wireless locator signal transmitter at the base unit, the remote microphone re-transmits the wireless signal to the

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base unit, enabling the base unit to determine a positional aspect of the user of the microphone and a pan or tilt capability associated with the video camera which is controlled as a function of the positional aspect, enabling the video camera to visually track a mover." To address this deficiency, the Examiner proposes the combination of Maeng, on the grounds that it would have provided Gidwani "with a camera that is capable of automatically steering itself to the user thereby allowing the user further mobility." Appellant respectfully traverses.

Apart from the fact that there is no teaching, suggestion or motivation whatsoever from the prior art in support of the Examiner's proposed combination, even if such combination were made, Appellants' invention would not result. Apparently the Examiner does not understand the teachings of Maeng. In particular, the Examiner argues that Maeng teaches a wireless locator signal transmitter at the base unit, including a remote microphone that retransmits the wireless signal to the base unit enabling the base unit to determine a positional aspect of a user. Maeng teaches nothing of the kind. Rather, Maeng teaches a microphone array 14, each microphone in the array being hardwired to an automatic camera controller, enabling the camera to automatically track the position of a speaker.

Thus, the system of Maeng works on an entirely different principle; namely, by looking at the signals received from a plurality of microphones arranged in an array, signal strength can be analyzed to formulate an approximation of where a speaker is. The microphones are definitely hardwired, and not wireless, as they receive audio directly from a speaker which is then delivered to the automatic camera controller 16. The same sections of Maeng cited by the Examiner, namely, column 1, lines 50-67 and column 3, lines 24-54, confirm that this is the case. Not only are the microphones of Maeng hardwired, there is no teaching or suggestion whatsoever of a remote microphone retransmitting a wireless signal to the base unit enabling the base unit to determine a positional aspect. Such disclosures are strictly limited to those made by Appellant.

Given that there is no teaching or suggestion from the prior art in support of the Examiner's proposed combination, and given that even if such combination were made, Appellants' invention would not result, *prima facie* obviousness has clearly not been established.

B. Claims 13-17, 19 and 20, where claims 14-17, 19 and 20 stand/fall with claim 13.

Claim 13 adds to claim 8 a plurality of wireless remote microphones, each re-transmitting the locator signal to the base unit, along with circuitry for distinguishing the signals received by each microphone so that the camera tracks a particular user when that user is speaking. The Examiner argues that this is taught by Maeng but it is not. Indeed, it is the point of Maeng' system that all of the microphones receive the voice *of the same speaker*, so that the camera can be directed to that person. "The microphone array (14) is operable to receive a voice of a speaker and to provide an audio signal representing the voice." (Maeng, Abstract, Emphasis added.)

C. Claim 18.

Claim 18 adds to claim 8 the limitation that "the wireless signal transmitter located at the base unit transmits an inaudible acoustic signal." The Examiner's argument is "see Maeng, Abstract." Proof that the Examiner is misinterpreting the prior art is evident from the language of that Abstract, which is reproduced below:

> "An automatic voice tracking camera system (12) is provided. System (12) includes a camera (18) operable to receive control signals for controlling a view of the camera (18). A microphone array (14) comprises a plurality of microphones. The microphone array (14) is operable to receive a voice of a speaker and to provide an audio signal representing the voice. A beamformer (30) coupled to the microphone array (14). The beamformer (30) is operable to receive the audio signal, to generate from the audio signal speaker position data representing a position of the speaker, and to provide the speaker position data. A camera controller (36) is coupled to the beamformer (30) and to the camera (18). The camera controller (36) is operable to receive the speaker position data and to determine an appropriate responsive camera movement. The camera controller (36) is further operable to generate camera control signals and to provide the camera control signals to the camera (18) such that the view of the camera (18) automatically tracks the position of the speaker.

As the Board will see, "inaudible acoustic signal" is nowhere to be found in this passage. The requirements for rejection have not been met.

Conclusion

This application was originally filed over 6 years ago. Numerous prior-art references and combinations have been attempted by the Examiner, all unpersuasive. This is not the first appeal of this case; Appellants prevailed on the last appeal and the current arguments by the Examiner are no

better. For the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellants seek the Board's concurrence at this time.

Respectfully submitted,

Dated: Jan. 22, 2007

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APPENDIX A

CLAIMS ON APPEAL

8. Telecommunications apparatus, comprising:

a base unit including an interface to a telecommunications network;

at least one wireless remote microphone in wireless communication with the base unit, enabling a user of the microphone to speak to a listener through the base unit and telecommunications network,

the base unit forming part of a video teleconferencing system including a video camera for capturing images of the user for transmission to the listener through the telecommunications network;

a wireless locator signal transmitter located at the base unit;

the remote microphone being configured to receive and re-transmit the locator signal to the base unit, enabling the base unit to determine a positional aspect of the user of the microphone; and

a pan or tilt capability associated with the video camera which is controlled as a function of the positional aspect, enabling the video camera to visually track a moving user.

11. The telecommunications apparatus of claim 8, further including:

an auto-focusing capability for the video camera which is controlled as a function of the positional aspect.

12. The telecommunications apparatus of claim 8, further including:

a zoom lens associated with the video camera which is controlled as a function of the positional aspect.

13. The telecommunications apparatus of claim 8, further including:

a plurality of wireless remote microphones, each re-transmitting the locator signal to the base unit; and

circuitry for distinguishing the signals received by each microphone so that the camera tracks a particular user when that user is speaking.

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14. The telecommunications apparatus of claim 13, further including:

a plurality of wireless locator signal transmitters; and

wherein each remote microphone re-transmits one of the locator signals to the base unit, enabling the base unit to determine a positional aspect of each user.

15. The telecommunications apparatus of claim 14, further including:

a pan, tilt, or zoom capability associated with the video camera which is controlled as function of the positional aspect of each user.

16. The telecommunications apparatus of claim 15, wherein the pan, tilt, or zoom capabilities are effectuated by selecting a subset of pixels from a larger number of pixels in an image gathered by the camera.

17. The telecommunications apparatus of claim 14, further including:

an auto-focusing capability for the video camera which is controlled as a function of the positional aspect of each user, enabling the camera to control depth-of-field associated with one or more users.

18. The telecommunications apparatus of claim 8, wherein the wireless signal transmitter located at the base unit transmits an inaudible acoustic signal.

19. The telecommunications apparatus of claim 13, wherein the circuitry for distinguishing the signals received by each microphone so that the camera follows a particular user includes a different carrier frequency associated with each microphone.

20. The telecommunications apparatus of claim 13, wherein the circuitry for distinguishing the signals received by each microphone includes microphone identification circuitry located at the base unit.

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APPENDIX B

EVIDENCE

None.

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APPENDIX C

RELATED PROCEEDINGS

None.